REMARKS

Claims 1-32 were presented for examination, are pending and are rejected. Reconsideration is respectfully requested.

The 35 U.S.C. § 112 Rejections

Claims 1-18 and 20-32 are rejected as being indefinite.

The Examiner states: "Regarding Claims 1 and 21, the applicant claims a 'means for optically pumping...'; it is unclear what the Applicant is specifically referring to in the specification." The rejection is respectfully traversed.

Mechanisms for optically pumping a gain medium are well known in the art. For example, the incorporated patent, U.S. Patent No. 6,347,109, discusses the use of a laser diode pump array 21 in column 3, lines 43-47, with respect to Figure 2, and further discusses the use of laser diode arrays as a pumping means throughout the patent. The novelty of the present invention does not reside in the specific pumping mechanism, and one skilled in the art could use a variety of pump means depending on the laser gain medium employed. The present application shows pump source 44 in block diagram form in Figure 4 and describes pump source 44, on page 8, lines 12-14. Therefore the rejection should be withdrawn.

Claims 6-8 and 25-27 have been amended to provide proper antecedent basis. Therefore the rejection should be withdrawn.

The Examiner indicates that in claims 12, 13 and 29, it is unclear what the cooler arrangement is that is being claimed. Claims 12, 13 and 29 have been amended to recite a microchannel cooler as shown in Figure 4 and described in the application on page 9, lines 7-18. Therefore the rejection should be withdrawn.

The rejection of claims 14 and 15 is respectfully traversed. Highly reflecting thin film stacks are well known in the art and are sometimes referred to as multilayer stacks. A stack usually is made of alternating layers of high and low index material, where each layer has a thickness designed to optimize reflection at a particular wavelength. Therefore the rejection should be withdrawn.

The rejection of claims 11, 20 and 28 is respectfully traversed. The applicants' use of "means-plus-function" language invokes an interpretation under the 6th paragraph of 35 U.S.C. 112 such that the limitation is construed according to the specification and equivalents thereto.

On page 9, lines 7-18, and in Figure 4, the applicants describe and show a cooler attached to the mirror layer. Further, three issued U.S. patents that describe in detail a variety of conventional and microchannel coolers are incorporated by reference. Therefore the rejection should be withdrawn.

The 35 U.S.C. § 102 Rejections

Claims 1, 5, 10, 11, 16-21, 28 and 30-32 are rejected as being anticipated by Dixon. The rejection is respectfully traversed.

The applicant has amended claims 1, 19 and 21 to recite that the solid state laser gain medium comprises an optical axis that is not parallel with the first surface and the second surface and that the index matched layer comprises an edge that is not parallel with the first surface of the gain medium. The optical pump portion of these claims has been amended to clarify that the pump light may not pump the gain medium along its optical axis. The reference teaches directing pump light from a laser diode through an index matched bonding material into the gain medium along its optical axis (see claims 1 and 14 of the reference). Therefore the rejection should be withdrawn.

The 35 U.S.C. § 103 Rejections

Claims 2-4, 9, 22 and 23 are rejected as being unpatentable over Dixon in view of Kozlovsky et al. The rejection is respectfully traversed.

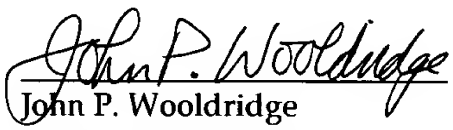
Claims 1 and 21 should be allowable over Dixon as discussed above. Claims 2-4 and 9 depend from claim 1 and should therefore be allowable. Claims 22 and 23 depend from claim 21 and should therefore be allowable. Therefore the rejection should be withdrawn.

Conclusions

It is submitted that this application is in condition for allowance based on claims 1-32 in view of the amendments thereto and the foregoing comments.

If any impediments remain to prompt allowance of the case, please contact the undersigned at 925-456-2279.

Respectfully submitted,



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